

PENDING CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously Presented) Apparatus for distribution of image, of either still or motion type, and audio information to a plurality of viewing locations, comprising:

means for independently receiving, at each of the plurality of viewing locations, at least one compressed and encrypted image file, which is associated with at least one corresponding image program, and a plurality of compressed and encrypted audio files, which are associated with a plurality of corresponding audio programs for presentation at at least one preselected later time, wherein

the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files are all associable using at least one identifier for each of the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files;

means for independently storing in a storage system at each of the plurality of viewing locations the compressed and encrypted image and audio files;

means for independently distributing the compressed and encrypted image and audio files from the storage system to at least one auditorium at each of the plurality of viewing locations, based at least in part on the at least one identifier;

means for independently receiving the compressed and encrypted image and audio files in each auditorium;

means for independently decrypting the compressed and encrypted image and audio files in each auditorium, resulting in at least one compressed image file and a plurality of compressed audio files;

means for independently decompressing the compressed image and audio files in each auditorium, resulting in the at least one corresponding image program and the plurality of corresponding audio programs;

at least one projection system in each auditorium for receiving the at least one corresponding image program and presenting the at least one corresponding image program at the at least one preselected later -time; and

at least one sound system in each auditorium for receiving the plurality of corresponding audio programs and selectively playing at least one of the plurality of corresponding audio programs with the presented at least one corresponding image program.

2. (Cancelled)

3. (Previously Presented) The apparatus of Claim 1 wherein said compressed and encrypted image and audio files are each stored in a non contiguous manner independent of each other.

4. (Previously Presented) The apparatus of Claim 1 wherein said compressed and encrypted image and audio files are compressed at a variable rate.

5. (Previously Presented) The apparatus of Claim 1 wherein the at least one identifier is received, at each of the plurality of viewing locations, with each of the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files, and is unencrypted and uncompressed.

6. (Previously Presented) The apparatus of Claim 1 wherein said compressed and encrypted image and audio files are compressed remotely.

7. (Previously Presented) The apparatus of Claim 1 further comprising means for using the at least one identifier to link the selectively played at least one of the plurality of corresponding audio programs with the presented at least one corresponding image program.

8. (Previously Presented) The apparatus of Claim 7 wherein each of the plurality of corresponding audio programs comprises multiple audio tracks to be presented with the same at least one corresponding image program during different presentation events.

9. (Previously Presented) The apparatus of Claim 136 further comprising a digital image generation system for generating the digitized image and audio information.

10. (Original) The apparatus of Claim 9 wherein said generation system comprises a digital camera.

11. (Previously Presented) The apparatus of Claim 10 wherein the image and audio programs from said digital camera are captured, encrypted, compressed and broadcast in substantially real time to preselected authorized auditoriums by said central facility substantially contemporaneously with digitizing the image and audio information.

12. (Original) The apparatus of Claim 9 wherein said generation system comprises a Telecine device.

13. (Previously Presented) The apparatus of Claim 9 wherein said generation system comprises a computer-based workstation.

14. (Previously Presented) The apparatus of Claim 1 further comprising means for storing the compressed and encrypted image and audio information in a storage system for transfer at the preselected later time.

15. (Cancelled)

16. (Previously Presented) The apparatus of Claim 1 further comprising means for receiving cryptographic key information necessary for decryption of the compressed and encrypted image and audio files at a separate time from the receiving of the compressed and encrypted image and audio files.

17. (Previously Presented) The apparatus of Claim 16 further comprising means for storing and transporting said cryptographic key information necessary for decryption to authorized auditoriums at a time separate from distributing the compressed and encrypted image and audio-files.

18. (Previously Presented) The apparatus of Claim 17 further comprising means for receiving a time interval over which said cryptographic key information is valid and for assuring that said cryptographic key information is only used during the indicated time interval.

19. (Original) The apparatus of Claim 18 further comprising means for overwriting said cryptographic key information in a storage location after said time interval expires.

20. (Previously Presented) The apparatus of Claim 1 further comprising means for receiving at least one watermark which is perceptually unnoticeable during presentation of the image or

audio program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

21. (Previously Presented) The apparatus of Claim 20 wherein said watermark identifies both presentation time and location for the image or audio program.

22. (Previously Presented) The apparatus of Claim 136 further comprising a modulation and transmission system for establishing a wireless communication link over which the compressed and encrypted digitized image and audio information is transferred between said central facility and said auditoriums.

23. (Previously Presented) The apparatus of Claim 22 wherein said means for transferring comprises means for broadcasting of said compressed and encrypted digitized image and audio information to any of the auditoriums to allow multiple presentations of said one or more programs in different ones of said auditoriums at the same time.

24. (Previously Presented) The apparatus of Claim 22 wherein a transmission bit rate of said compressed and encrypted digitized image and audio information is not equal to a bit rate at which said encrypted digitized image and audio information is compressed.

25. (Previously Presented) The apparatus of Claim 22 wherein a transmission bit rate of said compressed and encrypted digitized image and audio information is equal to a bit rate at which said encrypted digitized image and audio information is compressed.

26. (Previously Presented) The apparatus of Claim 22 wherein additional checksum information is appended to said transferred compressed and encrypted digitized image and audio

information so as to allow detection of blocks of transmitted information in which transmission errors occur.

27. (Previously Presented) The apparatus of Claim 22 wherein said means for transferring comprises at least one satellite.

28. (Previously Presented) The apparatus of Claim 27 further comprising at least one collocated satellite receiver terminal at said central facility for monitoring quality of a satellite channel used for transferring compressed and encrypted digitized image and audio information so as to allow adjustments in transfer characteristics of said satellite channel to maintain a desired level of quality.

29. (Previously Presented) The apparatus of Claim 136 further comprising a two-way transfer link disposed between said central facility and auditoriums over which data is exchanged.

30. (Original) The apparatus of Claim 29 wherein said data comprises data used for cryptographic security purposes.

31. (Previously Presented) The apparatus of Claim 29 wherein said data comprises data used to request re-transmission of information received at said auditorium with errors.

32. (Previously Presented) The apparatus of Claim 31 further comprising means for re-transmitting information having been received at said auditorium with errors over said two-way link.

33. (Previously Presented) The apparatus of Claim 29 wherein said data comprises various monitor and control inputs and commands transferred between said central facility and auditoriums.

34. (Original) The apparatus of Claim 29 wherein said two-way link comprises a dedicated telephone data link.

35. (Original) The apparatus of Claim 29 wherein said two-way link comprises a dialup telephone data link.

36. (Original) The apparatus of Claim 29 wherein said two-way link comprises a packet type data link.

37. (Original) The apparatus of Claim 29 wherein said two-way link comprises an Internet based link.

38. (Original) The apparatus of Claim 29 wherein said two-way link comprises a wireless data link.

39. (Original) The apparatus of Claim 29 wherein said two-way link comprises a satellite based data link.

40. (Previously Presented) The apparatus of Claim 136 further comprising a network management system for managing a network of auditoriums to present images for viewing at authorized times and locations.

41. (Original) The apparatus of Claim 40 wherein said network management system provides operational control of each auditorium.

42. (Cancelled)

43. (Previously Presented) The apparatus of Claim 1 wherein the compressed and encrypted audio and image files are broadcast to pre-selected auditoriums at a given time.

44. (Previously Presented) The apparatus of Claim 43 further comprising at least one decoder/decrypter integrated into each projection and sound system within each auditorium to prevent wiretapping and copying of the audio and image information.

45. (Previously Presented) The apparatus of Claim 44 further comprising means for detecting physical intrusion into each projection and sound system within each auditorium and for erasing of decryption key information whenever such an intrusion is detected.

46. (Previously Presented) The apparatus of Claim 1 wherein said means for distributing is configured to distribute the compressed and encrypted image and audio files for a single image program to different ones of a plurality of auditoriums, with each distribution including one or more preselected programmable offsets in time relative to the other distribution.

47. (Original) The apparatus of Claim 46 wherein said preselected programmable offsets are substantially zero so that said single image program is presented to different ones of said auditoriums substantially simultaneously.

48. (Cancelled)

49. (Previously Presented) The apparatus of Claim 1 wherein said storage system comprises a data storage bank shared by multiple auditoriums.

50. (Original) The apparatus of Claim 49 wherein said data storage bank comprises an array of magnetic media storage devices.

51. (Previously Presented) The apparatus of Claim 50 wherein said array of storage devices comprises means for using parity information to link different preselected portions of the compressed and encrypted image and audio files to different ones of said storage devices during storage and to a single auditorium at retrieval.

52. (Previously Presented) The apparatus of Claim 50 wherein said storage system comprises means for parallel “striping” of received information across said array of storage devices to provide a desired data transfer rate and error protection redundancy.

53. (Previously Presented) The apparatus of Claim 50 further comprising means for storing a viewing history of authorized image programs presented in each auditorium and for reporting said history to the storage system.

54. (Original) The apparatus of Claim 40 further comprising a theater management system for operational control and monitoring of auditoriums within a theater complex.

55. (Original) The apparatus of Claim 54 wherein said theater management system further comprises program control means for creating program sets from one or more received individual image and audio programs, which are scheduled for presentation on an auditorium system during an authorized interval.

56-58. (Cancelled)

59. (Previously Presented) The apparatus of Claim 1 further comprising a local theater network system for distributing stored information to one or more of a multiplicity of auditoriums.

60. (Original) The apparatus of Claim 59 comprising at least one local area network interface.

61. (Previously Presented) The apparatus of claim 1 wherein the image information is provided in the form of image programs which are in the form of either a single still frame or series of frames shown as motion pictures of varying length.

62. (Previously Presented) The apparatus of Claim 136 wherein said means for transferring comprises at least one optical fiber network.

63. (Previously Presented) The apparatus of Claim 136 wherein said means for transferring comprises at least one high speed wireline based network.

64. (Previously Presented) The apparatus of Claim 136 wherein said means for transferring comprises means for wireless broadcast of signals containing said compressed and encrypted image and audio information.

65. (Previously Presented) The apparatus of Claim 136 wherein said means for transferring comprises:

means for storing the compressed and encrypted digitized image and audio information, along with the at least one identifier, in said central facility; and

means for retrieving said stored information and at least one identifier onto a transportable storage medium for physical distribution to said auditoriums.

66. (Original) The apparatus of Claim 65 wherein said medium comprises optical storage medium.

67. (Original) The apparatus of Claim 65 wherein said medium comprises magnetic storage medium.

68. (Original) The apparatus of Claim 65 further comprising means for archiving said medium at said central facility.

69. (Previously Presented) The apparatus of Claim 65 further comprising means for archiving said medium at said auditorium.

70. (Previously Presented) A method for distribution of image, of either still or motion type, and audio information to a plurality of viewing locations comprising:

independently receiving, at each of the plurality of viewing locations, at least one compressed and encrypted image file, which is associated with at least one corresponding image program, and a plurality of compressed and encrypted audio files, which are associated with a plurality of corresponding audio programs, for presentation at at least one preselected later time, wherein

the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files are all associable using at least one identifier for

each of the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files;

independently storing in a storage system, at each of the plurality of viewing locations, the compressed and encrypted image and audio files;

independently distributing the compressed and encrypted image and audio files from the storage system to at least one auditorium at each of the plurality of viewing locations, based at least in part on the at least one identifier;

independently receiving the compressed and encrypted image and audio files in each auditorium;

independently decrypting the compressed and encrypted image and audio files in each auditorium, resulting in at least one compressed image file and a plurality of compressed audio files;

independently decompressing the compressed image and audio files in each auditorium, resulting in the at least one corresponding image program and the plurality of corresponding audio programs;

receiving the at least one corresponding image program at least one projection system in each auditorium and presenting the at least one corresponding image program at-the at least one preselected later time; and

receiving the plurality of corresponding audio programs at at least one sound system in each auditorium and selectively playing at least one of the plurality of corresponding audio programs with the presented at least one corresponding image program.

71. (Cancelled)

72. (Previously Presented) The method of Claim 70 further comprising storing said compressed and encrypted image and audio files are stored in a non contiguous manner independent of each other.

73. (Previously Presented) The method of Claim 70 wherein said compressed and encrypted image and audio files are compressed at a variable rate.

74. (Previously Presented) The method of Claim 70 wherein the at least one identifier is received, at each of the plurality of viewing locations, with each of the at least one compressed and encrypted image file and the plurality of compressed and encrypted audio files, and is unencrypted and uncompressed.

75. (Previously Presented) The method of Claim 70 wherein said compressed and encrypted image and audio files are compressed remotely.

76. (Previously Presented) The method of Claim 70 further comprising using the at least one identifier to link the selectively played at least one of the plurality of corresponding audio programs with the presented at least one corresponding image program.

77. (Previously Presented) The method of Claim 76 wherein each of the plurality of corresponding audio programs comprises multiple audio tracks to be presented with the same at least one corresponding image program during different presentation events.

78. (Previously Presented) The method of Claim 143 further comprising generating the digitized image and audio information using a digital image generation system.

79. (Previously Presented) The method of Claim 78 comprising further using a digital camera for said generating.

80. (Previously Presented) The method of Claim 79 further comprising capturing, encrypting, compressing and broadcasting the digitized image and audio information from said digital camera to preselected authorized auditoriums through said central facility substantially contemporaneous with digitizing of images.

81. (Previously Presented) The method of Claim 78 comprising using a computer based workstation for said generating.

82. (Previously Presented) The method of Claim 70 further comprising storing the compressed and encrypted image and audio information in a storage system for transfer at the preselected later time.

83. (Cancelled)

84. (Previously Presented) The method of Claim 70 further comprising receiving cryptographic key information necessary for decryption of the compressed and encrypted image and audio files at a time separate from said receiving of the encrypted and compressed image and audio files.

85. (Previously Presented) The apparatus of Claim 84 further comprising receiving a time interval over which said cryptographic key information is valid and assuring that said cryptographic key information is only used during that interval.

86. (Original) The apparatus of Claim 85 further comprising overwriting said cryptographic key information in a storage location after said time interval expires.

87. (Previously Presented) The method of Claim 70 further comprising receiving at least one watermark which is perceptually unnoticeable during presentation of the image or audio program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

88. (Previously Presented) The method of Claim 87 wherein said watermark identifies both a presentation time and a location for the image or audio program.

89. (Previously Presented) The method of Claim 143 further comprising modulating and transmitting the compressed and encrypted digitized image and audio information over a wireless communication link between said central facility and said auditoriums.

90. (Previously Presented) The method of Claim 89 comprising broadcasting said compressed and encrypted digitized image and audio information to any of the auditoriums to allow multiple presentations of said one or more programs in different ones of said auditoriums at the same time.

91. (Previously Presented) The method of Claim 89 comprising using a transmission bit rate for the compressed and encrypted digitized image and audio information that is not equal to a bit rate at which said encrypted digitized image and audio information is compressed.

92. (Previously Presented) The method of Claim 89 comprising using a transmission bit rate for the compressed and encrypted digitized image and audio information that is equal to a bit rate at which said encrypted digitized image and audio information is compressed.

93. (Previously Presented) The method of Claim 89 comprising appending checksum information to said transferred compressed and encrypted digitized image and audio information so as to allow detection of blocks of transmitted information in which transmission errors occur.

94. (Previously Presented) The method of Claim 89 comprising using at least one satellite for transferring the information to said auditoriums.

95. (Previously Presented) The method of Claim 94 further comprising collocating at least one satellite receiver terminal at said central facility and monitoring quality of a satellite channel used for transferring compressed and encrypted digitized image and audio information therewith, so as to allow adjusting transfer characteristics of said satellite channel to maintain a desired level of quality.

96. (Previously Presented) The method of Claim 143 further comprising exchanging data over a two-way transfer link disposed between said central facility and auditoriums.

97. (Original) The method of Claim 96 comprising using said data for cryptographic security purposes

98. (Previously Presented) The method of Claim 96 requesting re-transmission of information received at said auditoriums with errors.

99. (Previously Presented) The method of Claim 98 further comprising re-transmitting information having been received at said auditoriums with errors over said two-way link.

100. (Previously Presented) The method of Claim 96 wherein said data comprises various monitor and control inputs and commands transferred between said central facility and auditoriums.

101. (Original) The method of Claim 96 comprising using a dedicated telephone data link as said two-way link.

102. (Original) The method of Claim 96 comprising using a dialup telephone data link as said two-way link.

103. (Previously Presented) The method of Claim 96 comprising using a packet type data link as said two-way link.

104. (Original) The method of Claim 96 comprising using an Internet based link as said two-way link.

105. (Original) The method of Claim 96 comprising using a wireless data link as said two-way link.

106. (Original) The method of Claim 96 comprising using a satellite based data link as said two-way link.

107. (Previously Presented) The method of Claim 143 further comprising a network management system for managing a network of auditoriums to present images for viewing at authorized times and locations.

108. (Previously Presented) The method of Claim 107 wherein said network management system provides operational control of each auditorium.

109. (Previously Cancelled)

110. (Previously Presented) The method of Claim 70 comprising broadcasting the compressed and encrypted audio and image files to pre-selected auditoriums at a given time.

111. (Previously Presented) The method of Claim 110 further comprising integrating at least one decoder/decrypter into each projection and sound system within each auditorium to prevent wiretapping and copying.

112. (Previously Presented) The method of Claim 111 further comprising detecting physical intrusion into each projection and sound system for an auditorium system and for erasure of decryption key information whenever such an intrusion is detected.

113. (Previously Presented) The method of Claim 70 further comprising transferring the compressed and encrypted image and audio files for a single image program to different ones of a plurality of auditoriums, with each transfer including one or more preselected programmable offsets in time relative to the other transfers.

114. (Original) The method of Claim 113 comprising reducing said preselected programmable offsets to be substantially zero so that said single image program is presented to different ones of said auditoriums substantially simultaneously.

115. (Previously Presented) The method of Claim 70 wherein said storage system comprises a data storage bank shared by multiple auditoriums.

116. (Previously Presented) The method of Claim 115 comprising using an array of magnetic media storage devices as said storage system.

117. (Previously Presented) The method of Claim 116 comprising using parity information to link different preselected portions of the encrypted and compressed image and audio files to different ones of said devices during storage and to a single auditorium at retrieval.

118. (Original) The method of Claim 116 comprising parallel “striping” of received information across said array of storage devices to provide a desired data transfer rate and error protection redundancy.

119. (Previously Presented) The method of Claim 116 further comprising storing a viewing history of authorized image program presented in each auditorium and reporting said history to the storage system.

120. (Previously Presented) The method of Claim 70, further comprising controlling the operation of and monitoring of auditoriums within a theater complex using a theater management system.

121. (Original) The method of Claim 120 further comprising creating program sets within said theater management system from one or more received individual image and audio programs, which are scheduled for presentation on an auditorium system during an authorized interval.

122. (Cancelled)

123. (Previously Presented) The method of Claim 120 further comprising automatically distributing, storing, and presenting programs under programmable control from a control element remote from said storage system

124. (Previously Presented) The method of Claim 120 further comprising controlling certain preselected network operations from a location remote from said storage system.

125. (Previously Presented) The method of Claim 120 further comprising distributing stored information to one or more of a multiplicity of auditorium locations for presentation to an audience over a local theater network system.

126. (Previously Presented) The method of claim 70 further comprising providing image information in the form of image programs which are in the form of either a single still frame or series of frames shown as motion pictures of varying length.

127. (Previously Presented) The method of Claim 143 wherein said transferring comprises using at least one optical fiber network.

128. (Previously Presented) The method of Claim 143 wherein said transferring comprises using at least one high speed wireline based network.

129. (Previously Presented) The method of Claim 143 wherein said transferring comprises:

storing the compressed and encrypted digitized image and audio information, along with the at least one identifier, in said central facility;

retrieving said stored information and at least one identifier onto a transportable storage medium for physical distribution to said auditoriums.

130. (Original) The method of Claim 129 wherein said medium comprises optical storage medium.

131. (Original) The method of Claim 129 wherein said medium comprises magnetic storage medium.

132. (Previously Presented) The method s of Claim 129 further comprising archiving said medium at said central facility.

133. (Previously Presented) The method of Claim 129 further comprising archiving said medium at said auditoriums.

134. (Previously Presented) The method of Claim 143 wherein said transferring step comprises using at least one high speed wireline based network.

135. (Previously Presented) The method of Claim 143 comprising employing redundancy in said central facility and auditoriums for preselected functions for assuring reliable operation in a variety of anticipated operating situations.

136. **(Currently Amended)** Apparatus for distribution of digitized image, of either still or motion type, and audio information to a plurality of viewing locations, comprising:

a central facility for receiving and storing the digitized image and audio information;
means for separately encrypting the digitized image and audio information;
means for separately compressing the encrypted digitized image and audio information;
means for transferring, from said central facility, the separately compressed and separately encrypted digitized image and audio information as one or more programs to the plurality of viewing locations, each including one or more remotely located auditoriums, at a plurality of preselected later times with preselected offsets, wherein

the separately compressed and separately encrypted digitized image and audio information are transferred along with at least one uncompressed and unencrypted identifier used to identify which of the separately compressed and separately encrypted digitized image and audio information are associated with each of the one or more programs at each of the one or more remotely located auditoriums, thus allowing different audio programs to be combined with image programs.

137. **(Previously Presented)** The apparatus of Claim 136 further comprising means for providing cryptographic key information necessary for decryption of the compressed and encrypted digitized image and audio information at authorized auditoriums at a separate time from said transferring of the compressed and encrypted digitized image and audio information.

138. **(Previously Presented)** The apparatus of Claim 137 further comprising means for storing and transporting said cryptographic key information.

139. (Previously Presented) The apparatus of Claim 138 further comprising means for indicating a time interval over which said cryptographic key information is valid and for assuring that said cryptographic key information is only used during the indicated time interval.

140. (Previously Presented) The apparatus of Claim 139 further comprising means for facilitating the overwriting of said cryptographic key information in a storage location after said time interval expires.

141. (Previously Presented) The apparatus of Claim 136 further comprising means for adding at least one watermark which is perceptually unnoticeable during presentation of the image or audio program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

142. (Previously Presented) The apparatus of Claim 141 wherein said watermark identifies both presentation time and location for the image or audio program.

143. (**Currently Amended**) A method for distribution of digitized image, of either still or motion type, and audio information to a plurality of viewing locations, comprising:

receiving and storing in a central facility the digitized image and audio information;

separately encrypting the digitized image and audio information;

separately compressing the encrypted digitized image and audio information;

transferring, from the central facility, the separately compressed and separately encrypted digitized image and audio information as one or more programs to the plurality of viewing locations, each including one or more remotely located auditoriums, at a plurality of preselected later times with preselected offsets, wherein

the separately compressed and separately encrypted digitized image and audio information are transferred along with at least one uncompressed and unencrypted identifier used to identify which of the separately compressed and separately encrypted digitized image and audio information are associated with each of the one or more programs at each of the one or more remotely located auditoriums, thus allowing different audio programs to be combined with image programs.

144. (Previously Presented) The method of Claim 143 further comprising storing the compressed and encrypted image and audio information in said central facility for transfer at a later predetermined time.

145. (Previously Presented) The method of Claim 143 further comprising encrypting said digitized image and audio information at said central facility and decrypting the resulting encrypted digitized image and audio information at said auditoriums.

146. (Previously Presented) The method of Claim 145 further comprising storing and transporting cryptographic key information necessary for decryption of the compressed and encrypted image and audio information to authorized auditoriums at a time separate from said transferring of the compressed and encrypted digitized image and audio information.

147. (Previously Presented) The method of Claim 145 further comprising indicating a time interval over which said cryptographic key information is valid and assuring that said cryptographic key information is only used during that interval.

148. (Previously Presented) The method of Claim 147 further comprising overwriting said cryptographic key information in a storage location after said time interval expires.

149. (Previously Presented) The method of Claim 143 further comprising adding at least one watermark which is perceptually unnoticeable during presentation of image or audio program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

150. (Previously Presented) The method of Claim 149 further comprising configuring said watermark to identify both a presentation time and a location for the image or audio program.